

Message Text

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PAGE 01 IAEA V 03407 211809Z

44

ACTION ACDA-10

INFO OCT-01 EUR-12 EA-10 NEA-09 IO-10 ISO-00 ACDE-00 AF-06

ARA-10 CIAE-00 DODE-00 PM-03 H-02 INR-07 L-02 NASA-02

NSAE-00 NSC-05 OIC-02 SP-02 PA-02 PRS-01 OES-05 SS-15

USIA-15 SAJ-01 /132 W

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FM USMISSION IAEA VIENNA

TO SECSTATE WASHDC PRIORITY 5732

INFO AEC GERMANTOWN PRIORITY

AMEMBASSY LONDON PRIORITY

AMEMBASSY PARIS

AMEMBASSY BERN

AMEMBASSY MOSCOW

AMEMBASSY NEW DELHI

AMEMBASSY OTTAWA

AMEMBASSY ROME

AMEMBASSY TOKYO

UNCLAS IAEA VIENNA 3407

EO 11652: NA

TAGS: PARM, TECH, IAEA

SUBJECT: IAEA DG'S RESPONSE TO SWISS QUESTION RE INTER-
PRETATION OF SAFEGUARDS AGREEMENTS

REF: IAEA VIENNA 2823 (NOTAL)

1. MISSION HAS RECEIVED LETTER DATED APRIL 17 FROM
DG EKLUND REFERRING TO MARCH 26 LETTER AND SUBSEQUENT
TELEGRAM REPORTED REFTEL. LETTER GOES ON TO STATE,
QTE I AM ENCLOSING FOR THE CONSIDERATION OF THE EXPERTS
CONCERNED IN YOUR COUNTRY A PAPER PREPARED BY THE
SECRETARIAT WITH A VIEW TO FACILITATING CONSULTATIONS
ON THIS MATTER. I BELIEVE IT IS MOST DESIRABLE THAT THE
MATTER BE ACTIVELY PURSUED BY THE AGENCY AND I SHOULD
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PAGE 02 IAEA V 03407 211809Z

WELCOME YOUR VIEWS AS TO WHETHER THE PAPER MAY SERVE

AS A WORKING DOCUMENT FOR THE MEETING OF THE PROPOSED ADVISORY GROUP.

IN ADDITION TO THE MEMBER STATES REFERRED TO IN MY LETTER OF 26 MARCH, CANADA AND ITALY HAVE EXPRESSED THEIR INTEREST IN PARTICIPATING IN THE CONSULTATIONS AND COPIES OF THE ATTACHED PAPER HAVE BEEN SENT TO THEIR MISSIONS TO THE AGENCY. UNQTE.

2. ENCLOSURE REFERS TO PROVISION IN NPT SAFEGUARDS AGREEMENTS RE PURPOSE OF IAEA SAFEGUARDS TO VERIFY THAT SOURCE AND SPECIAL FISSIONABLE MATERIAL IS NOT DIVERTED TO NUCLEAR WEAPONS OR OTHER NUCLEAR EXPLOSIVE DEVICES (NOTING THAT CURRENT DEFINITION SOURCE MATERIAL DOES NOT INCLUDE TRITIUM OR DEUTERIUM), AND TO OTHER (NON-NPT) SAFEGUARDS AGREEMENTS CONTAINING OBLIGATIONS NOT TO USE SAFEGUARDED ITEMS "IN SUCH A WAY AS TO FURTHER ANY MILITARY PURPOSE", WHICH IAEA CONSIDERS TO MEAN "INTER ALIA" THAT THE SAFEGUARDED ITEMS ARE NOT TO BE USED FOR NUCLEAR EXPLOSIVE DEVICES".

3. PAPER REFERS TO QUESTION RAISED IN BOARD, "WHETHER CONFINED LASER-(OR OTHERWISE) INDUCED FUSION AND FISSION-FUSION REACTIONS ENGENDERED IN ARTIFICIAL ENCLOSURES FOR THE PURPOSE OF PRODUCING ENERGY WOULD FALL WITHIN THE CATEGORY OF THE "NUCLEAR EXPLOSIVE DEVICES" REFERRED TO".

4. PAPER DESCRIBES CONCEPT FOR DISCUSSION AS FOLLOWS:
QTE: IT IS INTENDED THAT SMALL QUANTITIES OF FISSION-ABLE AND/OR FUSIONABLE MATERIAL (UP TO GRAM AMOUNTS) ARE COMPRESSED AND HEATED BY HIGH INTENSITY BEAMS (AS FROM LASERS OR ELECTRON ACCELERATORS). AT SUFFICIENTLY HIGH DENSITIES AND TEMPERATURES THE NUCLEAR FUEL EITHER BECOMES SUPER CRITICAL (FUSSION) OR UNDERGOES THERMONUCLEAR BURN (FUSION) OR A COMBINATION OF BOTH. THERE WOULD BE A RELEASE OF ENERGY WHILE THE MATERIAL IS INERTIALLY CONFINED. A SUITABLE APPARATUS CONFINES THE REACTION AND CONVERTS THE NUCLEAR ENERGY RELEASED INTO USEFUL FORMS. UNQTE.

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PAGE 03 IAEA V 03407 211809Z

5. PAPER NOTES THAT NEITHER NPT NOR IAEA SAFEGUARDS SYSTEM DEFINE "NUCLEAR EXPLOSIVE DEVICE" NOR DOES PREPARATORY RECORD FOR EITHER PROVIDE MUCH GUIDANCE. EXAMINATION OF QUESTION OF ASSEMBLIES USING CONCEPT DESCRIBED ABOVE REQUIRES IDENTIFICATION OF PRINCIPAL FEATURES, BEARING IN MIND NO SUCH ASSEMBLIES "HAVE BEEN DEMONSTRATED TO GENERATE ENERGY IN PRACTICE AND THAT

CHARACTERISTICS DESCRIBED IN LITERATURE ARE BASED ON THEORETICAL CALCULATIONS AND PREDICTIONS; SUBSTANTIAL DEVELOPMENT REQUIRED FOR INDUSTRIAL UTILITY TO BE ESTABLISHED. QTE. TAKING INTO ACCOUNT THIS SITUATION IT WOULD NEITHER SEEM FEASIBLE NOR DESIRABLE TO ATTEMPT TO ESTABLISH, AT THIS TIME, A SPECIFIC DEFINITION OF SUCH ASSEMBLIES FOR THE PURPOSE OF MAKING A DISTINCTION BETWEEN THEM AND "NUCLEAR EXPLOSIVE DEVICES"; RATHER A SET OF GUIDELINES OR BASIC TECHNICAL FEATURES MIGHT BE IDENTIFIED BY WHICH SUCH ASSEMBLIES COULD BE DISTINGUISHED FROM NUCLEAR EXPLOSIVE DEVICES WHICH THE STATE PARTIES TO SAFEGUARDS AGREEMENTS WITH IAEA HAVE UNDERTAKEN NOT TO DEVELOP USING SAFEGUARDED ITEMS". UNQTE.

6. PAPER GOES ON TO SAY, QTE THE GENERAL TECHNICAL FEATURES OF SUCH ASSEMBLIES SHOULD, THEREFORE, BE EXAMINED BY THE EXPERTS, SO THAT A DISTINCTION CAN THEN BE MADE BETWEEN SUCH FEATURES AND THOSE OF "NUCLEAR EXPLOSIVE DEVICES". AMONG THE MAIN POINTS RELEVANT FOR SUCH A DISTINCTION THE FOLLOWING MIGHT BE EXAMINED:

(A) THE POSSIBLE RANGES OF ENERGY RELEASED IN EACH NUCLEAR EVENT (BURST);

(B) THE POSSIBILITIES AND CHARACTERISTICS OF CONFINEMENT;

(C) THE MASS OF NUCLEAR MATERIAL INVOLVED IN EACH EVENT (BURST);

(D) THE TIME DURING WHICH NUCLEAR ENERGY IS RELEASED, I.E. THE DURATION OF THE BURST;

(E) THE CHARACTERISTICS OF A NEUTRON REFLECTOR OR UNCLASSIFIED

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PAGE 04 IAEA V 03407 211809Z

BUSIONABLE/FISSIONABLE BLANKET.

THE ABOVE CRITERIA SHOULD NOT BE CONSIDERED COMPLETE AND THE EXPERTS MIGHT WISH TO ADD OTHERS. UNQTE.

7. PAPER NOTES TYPICAL FEATURES SUCH ASSEMBLIES MAY CHANGE AND THUS ANY GUIDELINES SHOULD INCLUDE "PROCEDURES TO DEAL WITH SPECIFIC SITUATIONS, IN PARTICULAR, IF A STATE CONSIDERED THAT THE CRITERIA OF SUCH GUIDELINES DID NOT MEET THOSE OF A SPECIFIC PROJECT. THESE PROCEDURES SHOULD ENSURE THAT LEGITIMATE ECONOMIC AND TECHNOLOGICAL DEVELOPMENTS ARE NOT HAMPERED OR DELAYED. THE PROCEDURES COULD PROVIDE FOR ADVICE BY COMPETENT SPECIALISTS IN THE FIELD AND IT SHOULD BE NOTED THAT THE STATE CONCERNED MAY ALSO TAKE ITS CASE TO THE BOARD.

IT WILL ALSO BE NECESSARY TO DEVELOP SAFEGUARDS PROCEDURES
TO COVER APPROPRIATE CASES".

8. COPIES LETTER AND ENCLOSURE AIRMAILED AMMONS, ERDA,
VANDOREN, ACDA, AND HOYLE, OES.

9. ADVISE. LABOWITZ

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NNN

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